

CFP10 (25 µg/mL); A2,A3 negative controls consisted of cells cultured with medium alone; B2,B3 positive controls consisted of cells cultured with Con A (25 µg/mL).

Results: The CFP-10 recombinant protein were obtained and purified, In-house ELISPOT-IFN- γ assay using recombinant CFP-10 antigen show significant high frequencies TB specific T-cell responses in patients of active TB with or without HIV infection. there was 100% consistency to the clinical manifestation, in the HIV(+) group without clinical TB disease, the rate of positive tests results was 24.7%. Our results proved that it is indeed true that some of HIV positive patient have high frequencies of TB specific T-cell responses, it could be used in diagnosis of TB diseases, and it maybe provide a clue to find latent TB infection in Chinese HIV(+) population.

OL-043 Mechanism and therapeutic efficacy of peroxisome proliferator activated receptor agonist for virus-associated hemophagocytic syndrome

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Background and Aims: Hemophagocytic syndrome (HPS) is a fatal complication of severe viral infections such as Epstein-Barr virus (EBV) and recently, SARS CoV, and H5N1 influenza. The pathogenesis of HPS is presumed to result from an enhanced proinflammatory cytokine secretion and systemic macrophage activation. Previously, we demonstrated that EBV LMP-1 can activate T-cells and upregulate tumor necrosis factor- α and interferon- γ , mediated through the NF κ B/ATF5/SAP/ERK signaling, to activate macrophages. Since peroxisome proliferators activated receptor (PPAR) agonists, regulators of cholesterol metabolism, have been shown to exhibit profound effects on the inhibition of proinflammatory cytokines and macrophage activation through NF κ B and AP-1 signaling, we adopted a PPAR- γ agonist, rosiglitazone, for the potential therapy of HPS using a rabbit model of Herpesvirus papio (HVP, an EBV homologue)-associated HPS.

Materials and Results: In vitro, rosiglitazone was shown to inhibit macrophage activation and secretion of tumor necrosis factor- α (TNF- α) through inhibition of NF κ B signaling in THP1 cell line. Different doses of rosiglitazone were then fed to rabbits after intravenous injection of 5 \times 10⁷ copies of HVP virus at different time courses (7 days and 20 days, respectively) of infection. As compared to the control group which succumbed consistently at around one month, the 4mg rosiglitazone-treated group showed significant improvement of survival when fed at early stage (7 days) of infection ($p < 0.01$), while a higher dosage (8mg) is needed to achieve therapeutic effect at advanced stage (20 days) of infection ($p < 0.05$). The viral load, TNF α cytokine levels, and laboratory parameters also showed significant improvement in the rosiglitazone-treated group.

Conclusion: PPAR agonist, in addition to its therapeutic effect for metabolic syndrome, appears to represent a potential regimen of new concept for the control of HPS associated with severe virus infections.

OL-044 HAV seroprevalence among children with 10–24 month ages in Ulaanbaatar

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Background: HAV infection is high endemicity in Mongolia. The outbreak of acute HAV infection is regular and wide outbreak usually within 3–4 years interval. Recently, Mongolian and Japanese researchers established the seroprevalence of HAV infection in Mongolian adults almost 100%. So, there is urgently needed the HAV vaccination program in Mongolia.

Aim of study: To determine the age (month) of start for universal HAV vaccination.

Method and Subjects: In July and August 2008, there were selected 953 children ages 11–24 months from Chingiltei district, Ulaanbaatar. More 600 of them were living in the Mongolian ger (nomad's tent – less comfortable and sanitary condition than city's apartment). In all children had not manifested acute viral hepatitis. In all serum of selected children were tested anti-HAV-IgG.

Results: There was detected positive of anti-HAV in 20 children of 951. 19 of them living in ger. The table shows the results by age and sex.

Age (months)	Male		Female		Total	
	N	Anti-HAV+	N	Anti-HAV+	N	Anti-HAV+
11–12	71		59		130	0
13–14	104	2	94	2	202	4
15–16	74	1	68		143	1
17–18	70	3	58	1	132	4
19–20	57	1	57	2	117	3
21–22	57	2	48	1	108	2
23–24	77	5	59		141	5
Total	510	14	443	6	953	20

Conclusions: 1. The incidence of HAV infection occurred from 13 month's age, after wide outbreak. 2. There is recommended to start HAV vaccination for children, who living in uncomfortable hygiene condition, before 13 month's age.

OL-045 Clinical significance of beta-herpesvirus infections in HIV/AIDS and chronic fatigue syndrome patients in Latvia

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The aim of this study was to investigate the prevalence of beta-herpesvirus (HHV-6 and HHV-7) infections among the HIV/AIDS, chronic fatigue syndrome (CFS) patients in comparison with blood donors (BD).

Materials and Methods: 52 patients with HIV/AIDS, 49 CFS and 150 healthy BD were enrolled in the study. Active and latent/persistent viral infections determined by nPCR: the presence of viral genomic sequences in PBL DNA only was defined as latent/persistent infection; sequences in PBL DNA and blood plasma DNA was defined as active infection. Concurrent infection with both HHV-6 and HHV-7 was defined as simultaneous presence of both virus genomic sequences in DNA sample of patient (isolated from PBL or blood plasma).

Results: PCR analysis did not reveal a significant difference in the prevalence of latent/persistent HHV-7 infection

between HIV/AIDS patients (37/52) and BD (113/150). Concurrent latent/persistent HHV-6 and HHV-7 infections was found much more often in CFS patients (25/49) and patients with HIV infection (32/52) in comparison with BD (49/150). The frequency of active HHV-7 infections significantly higher in HIV/AIDS patients (19/37) in comparison with BD (12/113). Active concurrent herpesvirus infections were observed in HIV/AIDS (10/32) and (9/25) CFS patients only.

Conclusion: Active infection with both HHV-6 and HHV-7 more frequent in patients with CFS and HIV/AIDS than in BD.

Free Paper Presentation 6 – Hepatitis C

OL-046 Efficacy of interferon plus ribavirin therapy in chronic hepatitis C Patients: A Nepali study

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Background and Aim: Before the availability of pegylated interferon, interferon therapy in chronic hepatitis C patients was almost a failure in Nepal. This study was carried out to determine the efficacy of peg-interferon (2a) plus ribavirin in Nepali patients.

Method: Thirty-seven consecutive patients with anti HCV test report were enrolled in the study from April 2004 to December 2007. Chronic hepatitis was confirmed by raised aminotransferase and presence of HCV RNA by PCR. Peg-interferon was given in a dose of 180 mcg per week subcutaneously and dose was adjusted whenever required. Ribavirin was given in a dose of 800–1000 mg/day. Viral load was repeated after 4th dose, 12th dose, last dose, after 3 month and 6 month of treatment.

Results: Thirty-five patients showed detectable HCV RNA by PCR. 30 patients were treated and 29 followed up as 1 patient was lost in follow up. The genotype was 1 in 5, 2 in 9, 3 in 15 patients. 14 patients were super responder (9 type 3 and 5 type 2), while 12 patients were free of virus after 12 weeks of treatment. End treatment response (ETR) was 100% and sustained viral response (SVR) was achieved in 96.5%. Neutropenia was the commonest side effect of interferon while side effects of ribavirin were not seen.

Conclusions: Peg-interferon and ribavirin was well tolerated in Nepali patient. ETR was 100% and SVR was 96.5% in small cohort of patient. 12 weeks therapy may be considered in type 2 and 3 due to cost factor.

OL-047 Evaluation of anti-HCV samples deemed positive by chemiluminescent assay using recombinant immunoblot assay

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Objective: To conduct confirmative study of anti-HCV positive samples deemed positive by the second-tier and third-tier hospitals in China using two fully automatic chemiluminescent assay instrument, i2000 (ARCHITECT – iSystem) and ECI (the Ortho-Clinical Diagnostics Vitros ECI Anti-HCV with the use of the CHIRON RIBA (Recombinant Immunoblot Assay) HCV3.0 strip immunoblot assay (SIA) method. For the purpose to evaluate the rationality positive boundary value of the s/co for screening the HCV-positive samples. A boundary value of s/co has been specified such that any sample screened positive with s/co ratio greater than the boundary value would be at least better than 95% truly positive and

therefore need not to undergo confirmatory RIBA test. more accurate clinical diagnosis of HCV case.

Methods: First, screen out Anti-HCV samples that signal-to-cutoff (s/co) is 1–20 in the ARCHITECT-i2000 or the Vitros ECI is 1–35. Then, Chiron RIBA HCV3.0 SIA test was performed to confirm the Anti-HCV serological results from the two companies' instruments. Followed by checking the HCV RNA with real time PCR. Lastly, perform statistical ROC curve processing to determine the boundary value of S/CO for screening anti-HCV positive samples.

Results: Among the 203 samples, 33 (16%) were confirmed RIBA negative and HCV RNA negative; 93 samples (46%) were found RIBA positive but in which only 30 (32.3%) samples were also HCV RNA positive, 77 samples (38%) were found RIBA indeterminate and HCV RNA negative. In terms of sensitivity, the ARCHITECT i2000 analyzer is 99% and the Vitros ECI was found to be 100%. In terms of specificity, the ARCHITECT i2000 was found to be 61%; The Vitros ECI to be 52%. In terms of anti-HCV position predictive value, the ARCHITECT i2000 analyzer was 100% on s/co > 6.06 while the Vitros ECI analyzer was 100% on s/co > 12.35.

Conclusion: The criteria of Anti-HCV s/co > 1 is reasonable for screening test using fully automatic Chemiluminescent assay with assurance of sensitivity greater than 97%. The anti-HCV positive samples can be fairly confirmed if s/co > 6.05 is measured by the architect I2000 analyzer and s/co > 12.35 is measured by the Vitros ECI analyzer. When s/co is measured 1.0–6.5 by the ARCHITECT i2000 analyzer and 1.0–12.5 by the Vitros ECI analyzer, it is suggested to perform confirmatory RIBA HCV3.0 SIA test if affordable or perform HCV RNA test, but it may be more realistic to have periodic re-examination of anti-HCV samples.

OL-048 Identification of *Helicobacter hepaticus* and *Helicobacter* species in liver samples from Egyptian patients with hepatitis C cirrhosis with or without hepatocellular carcinoma

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Background and Aims: *Helicobacter pylori* is a recognized type I carcinogen. Although there is a mouse model, where liver fibrosis and hepatocellular carcinoma (HCC) are induced by infection with *H. hepaticus*, pathogenicity of enterohepatic *Helicobacter* (EHS) in man is still undefined.

Methods: 105 liver biopsies, 60 from patients with chronic hepatitis C infection and 45 from patients with HCV infection and HCC were collected in Egypt. *Helicobacter* DNA was detected by genus-specific 16S rDNA PCR and DNA sequencing (BLAST). Sera were tested for antibodies of different *Helicobacter* species (EIA, Immunoblot).

Results: 16S rDNA were found positive in 52.4%. In chronic HCV without HCC 51.7% while in chronic HCV with HCC 53.3% were positive respectively. *H. hepaticus* DNA was detected in chronic HCV without HCC in 35% and in 13.3% in chronic HCV with HCC. Antibody detection was positive in patients with hepatitis C without HCC for *H. pylori* in 67% and *H. hepaticus* in 22% while antibody detection was positive for *H. pylori* in 64% and *H. hepaticus* in 16% in patients with HCC.